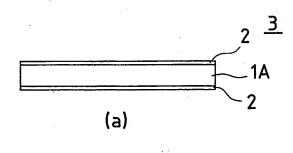
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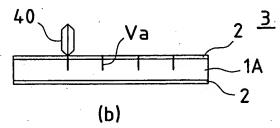
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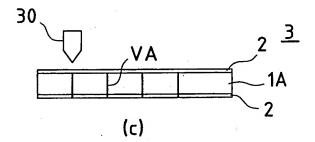
FIG.1

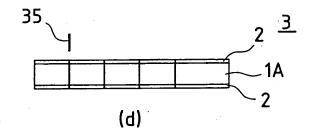
ı Î

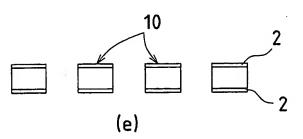
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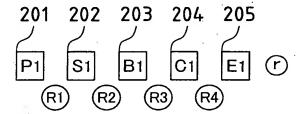
FIG.2

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (201)

R1~R4 : TRANSPORT ROBOTS

\$1 : SCRIBING DEVICE (202)B1 : BREAKING DEVICE (203)E1 : SEPARATING DEVICE (205)

C1 : PROTECTIVE MATERIAL CUTTING DEVICE (204)



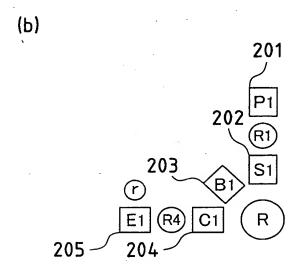
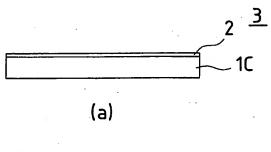
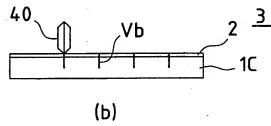
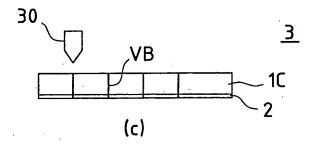


FIG.3







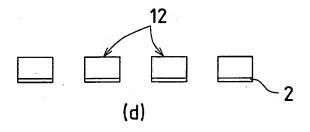
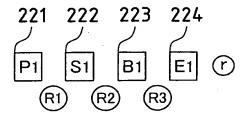


FIG.4

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (221

R1~R3 : TRANSPORT ROBOTS
S1 : SCRIBING DEVICE (222)
B1 : BREAKING DEVICE (223)

E1 : SEPARATING DEVICE (224)



224 E1 222 R1 S1 R3 R3 R1 R

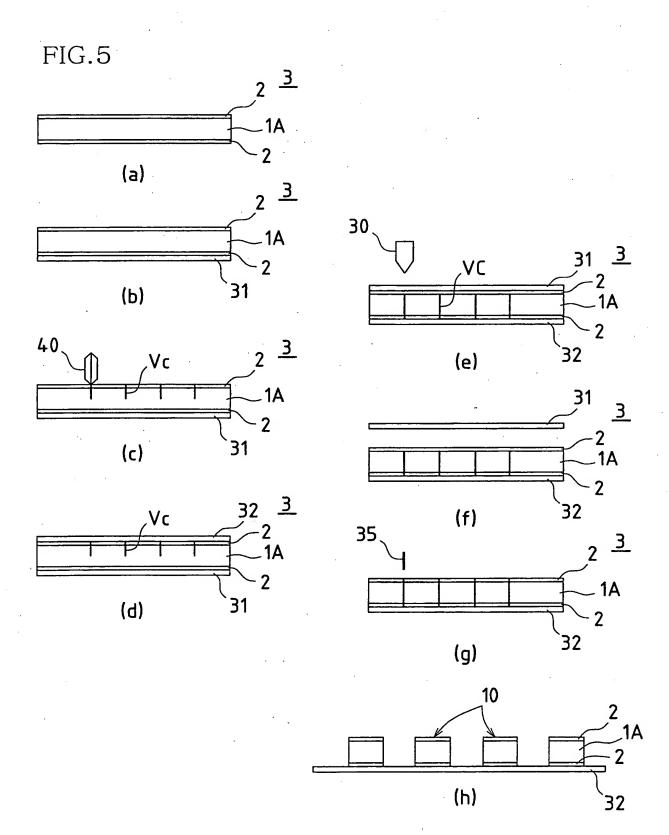


FIG.6

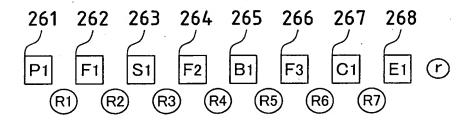
(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (261)

R1~R7: TRANSPORT ROBOTS

F1~F3: FILM PROCESSING DEVICES (262, 264, 266)

S1 : SCRIBING DEVICE (263)
B1 : BREAKING DEVICE (265)
E1 : SEPARATING DEVICE (268)

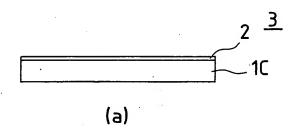
C1 : PROTECTIVE MATERIAL CUTTING DEVICE (267)

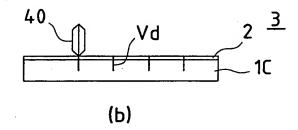


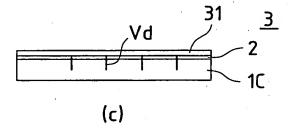
261 262 R1 263 S1 F1 F2 R 264 B1 F3 C1 267 F3 C1 267 E1 268

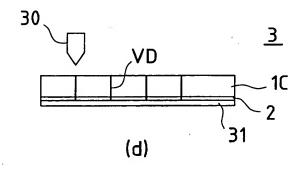
7/30

FIG.7









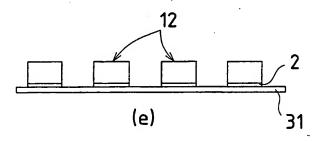


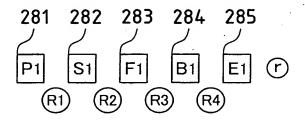
FIG.8

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (281)

R1~R4: TRANSPORT ROBOTS

F1: FILM PROCESSING DEVICE (283)

S1 : SCRIBING DEVICE (282)B1 : BREAKING DEVICE (284)E1 : SEPARATING DEVICE (285)



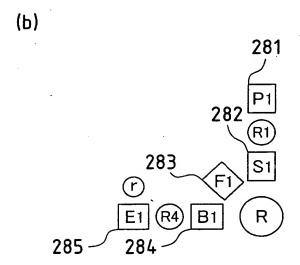


FIG.9

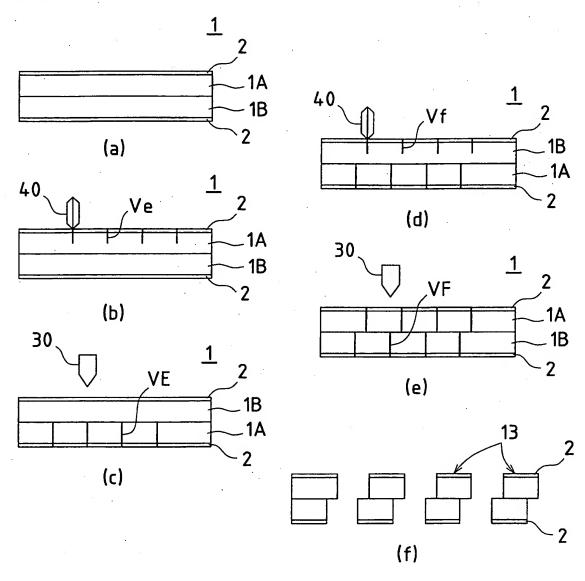


FIG.10

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (301)

R1~R5 : TRANSPORT ROBOTS

\$1 • \$2 : SCRIBING DEVICES (302, 304) B1 • B2 : BREAKING DEVICES (303, 305)

E1 : SEPARATING DEVICE (306)

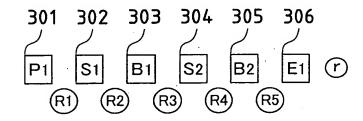


FIG.11

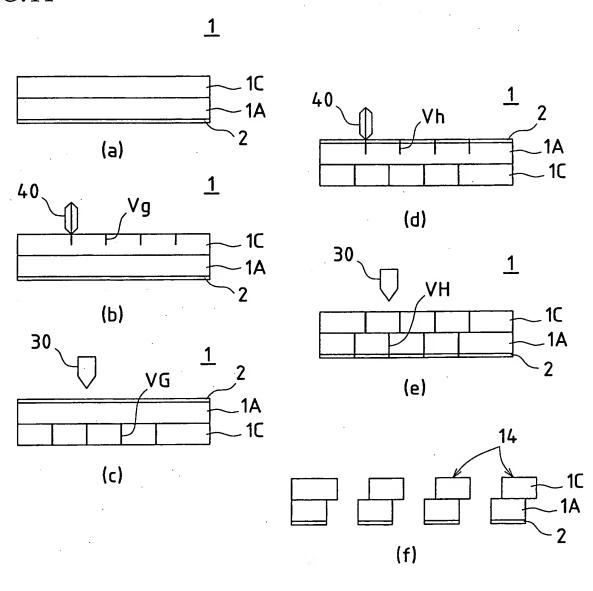


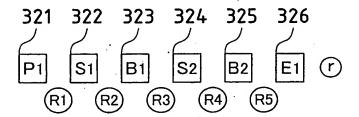
FIG.12

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (321)

R1~R5: TRANSPORT ROBOTS

S1-S2: SCRIBING DEVICES (322, 324) **B1-B2**: BREAKING DEVICES (323, 325)

E1 : SEPARATING DEVICE (326)



321 322 P1 323 B1 S1 324 S2 R B2 R B2 R B2 R B2 R B2 B2 B2 B2 B325 B326



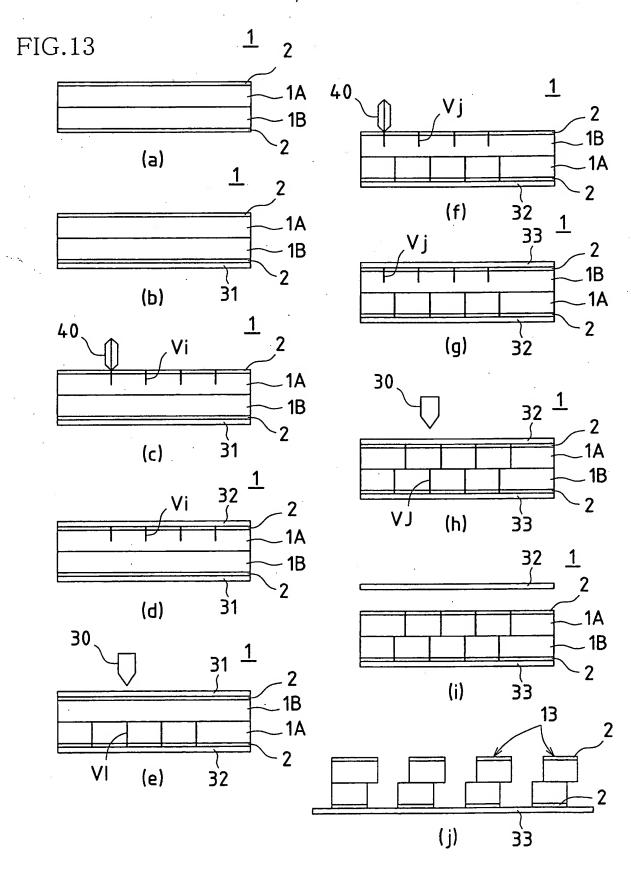


FIG.14

(a)

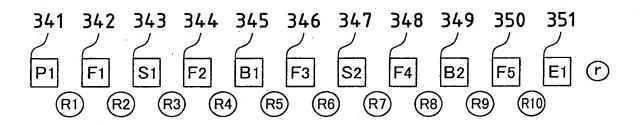
P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (341)

R1~R10: TRANSPORT ROBOTS

F1~F5 : FILM PROCESSING DEVICES (342, 344, 346, 348, 350)

S1 · S2 : SCRIBING DEVICES (343, 347) **B1 · B2** : BREAKING DEVICES (345, 349)

E1 : SEPARATING DEVICE (351)



341 342 P1 350 S1 F1 F5 349 344 F2 R B1 F3 S2 F4 348 346

FIG.15

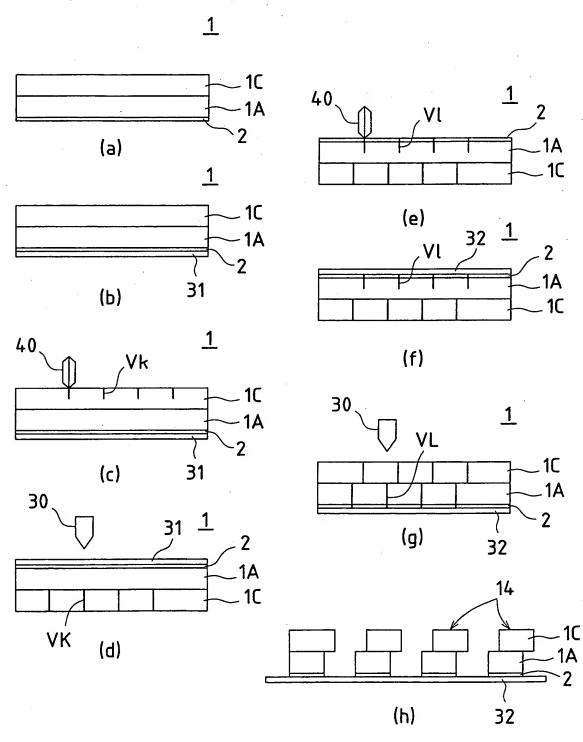


FIG.16

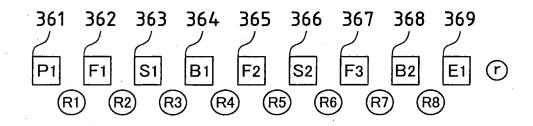
(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (361)

R1~R8: TRANSPORT ROBOTS

F1~F3: FILM PROCESSING DEVICES (362, 365, 367)

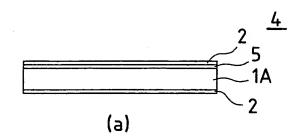
\$1 • \$2 : SCRIBING DEVICES (363, 366)
B1 • B2 : BREAKING DEVICES (364, 368)

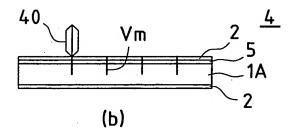
E1 : SEPARATING DEVICE (369)

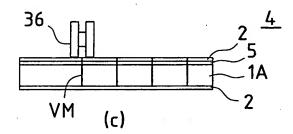


361 362 P1 368 P367 364 B1 R B2 R8 E1 364 F2 S2 F3 367 365 366

FIG.17







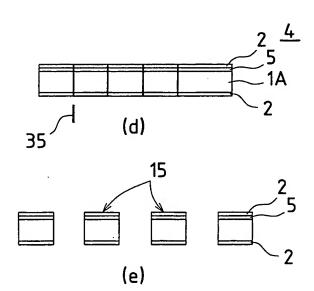


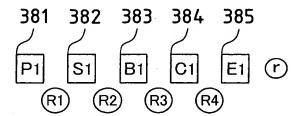
FIG.18

(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (381)

R1~R4 : TRANSPORT ROBOTS
S1 : SCRIBING DEVICE (382)

B1 : BREAKING DEVICE (383) E1 : SEPARATING DEVICE (385)

C1 : PROTECTIVE MATERIAL CUTTING DEVICE (384)



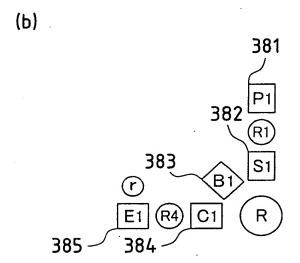


FIG.19

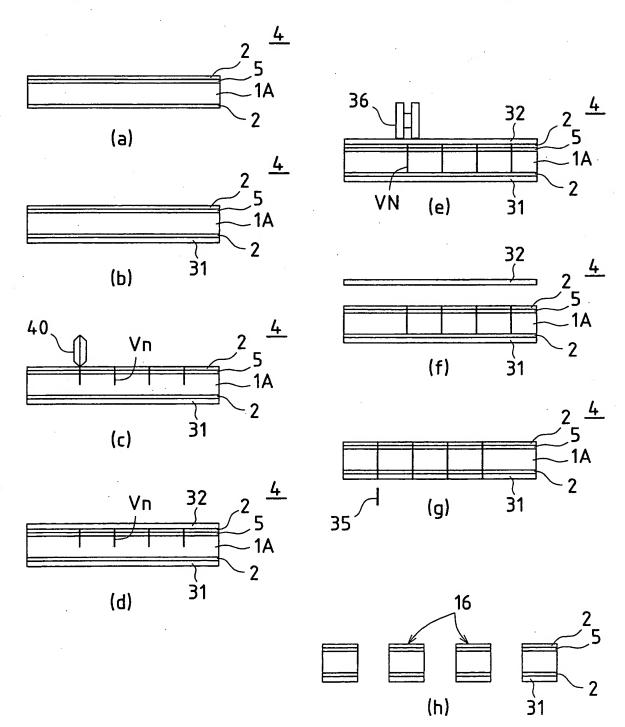


FIG.20

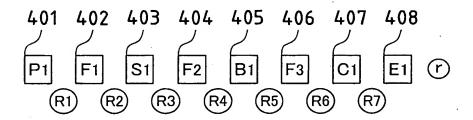
(a) P1 : PROTECTIVE MATERIAL PROCESSING DEVICE (401)

R1∼R7 : TRANSPORT ROBOTS

 $F1 \sim F3$: FILM PROCESSING DEVICES (402, 404, 406)

S1 : SCRIBING DEVICE (403)B1 : BREAKING DEVICE (405)E1 : SEPARATING DEVICE (408)

C1 : PROTECTIVE MATERIAL CUTTING DEVICE (407)



401 402 R1 403 S1 F1 404 B1 R7 P1 405 406 E1 408

21/30

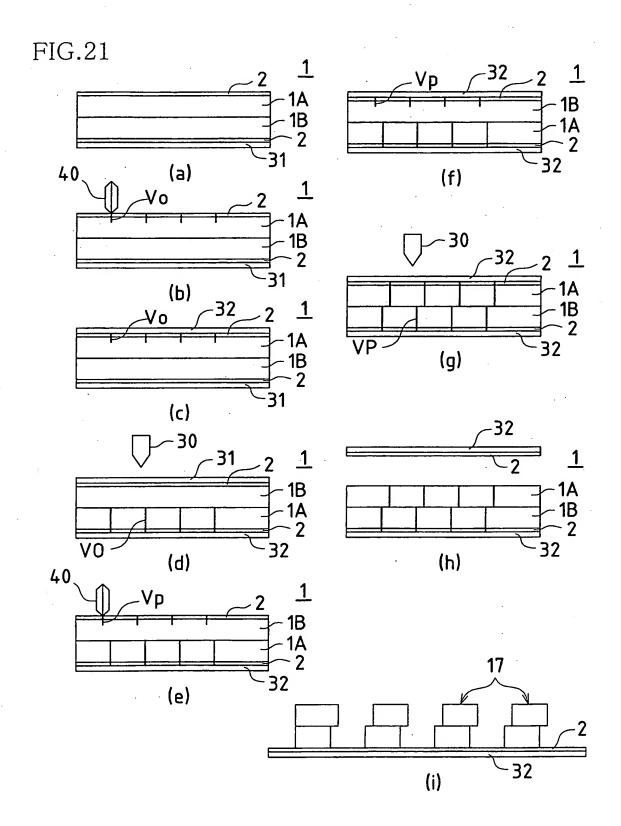


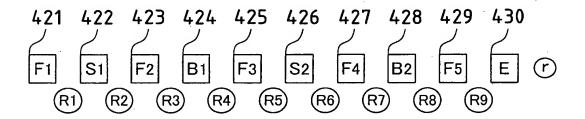
FIG.22

(a) R1~R9 : TRANSPORT ROBOTS

F1~F5 : FILM PROCESSING DEVICES (421, 423, 425, 427, 429)

S1-S2 : SCRIBING DEVICES (422, 426) **B1-B2** : BREAKING DEVICES (424, 428)

E : SEPARATING DEVICE (430)



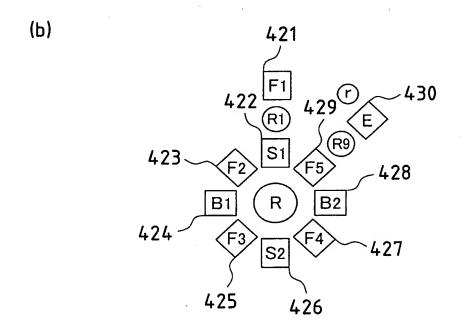


FIG.23

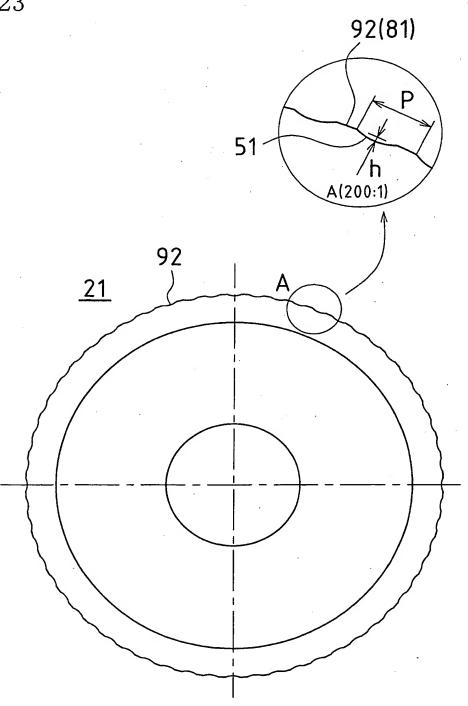
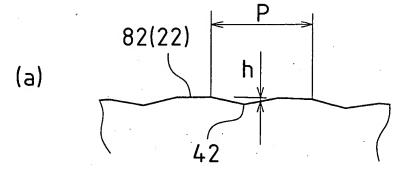
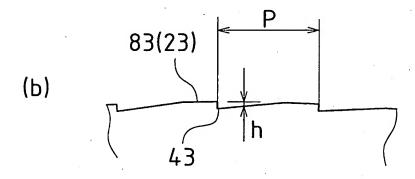


FIG.24





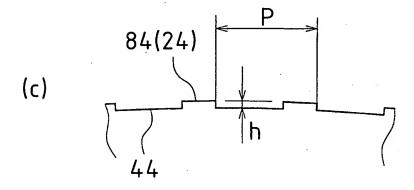
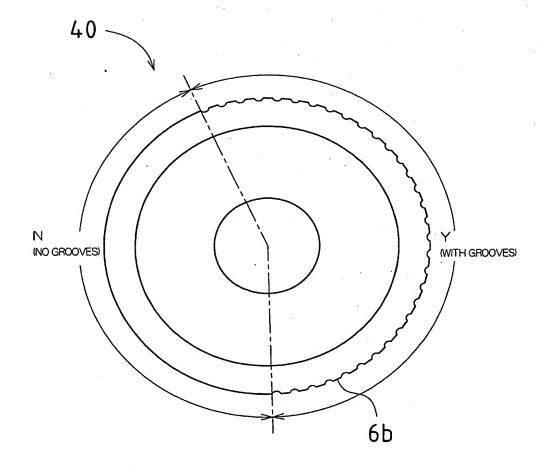
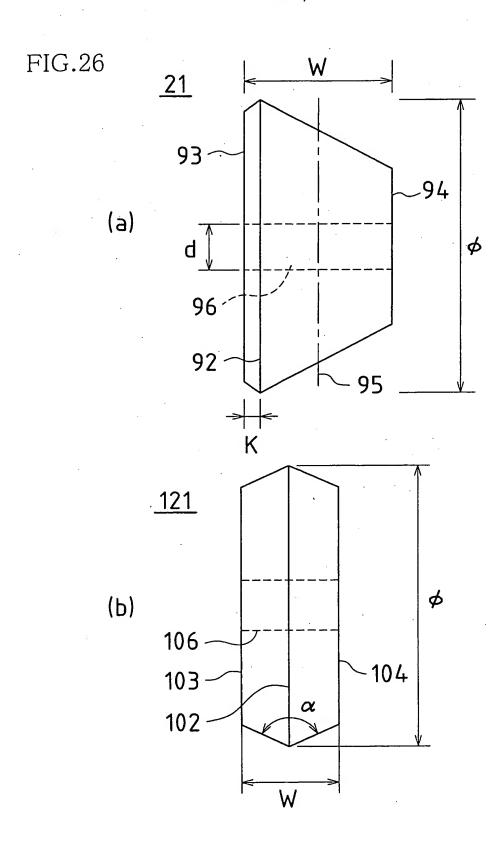


FIG.25



26/30



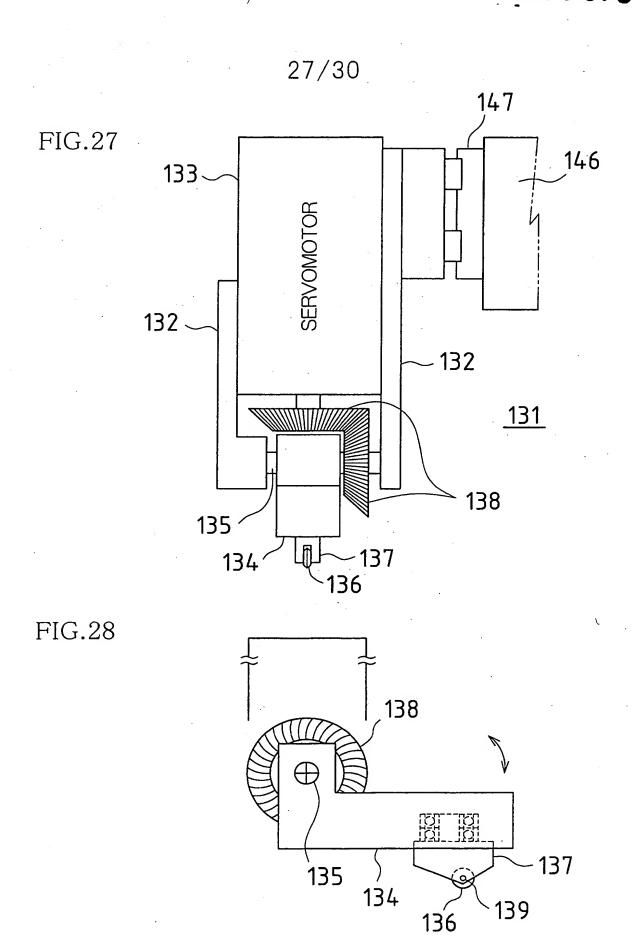


FIG.29

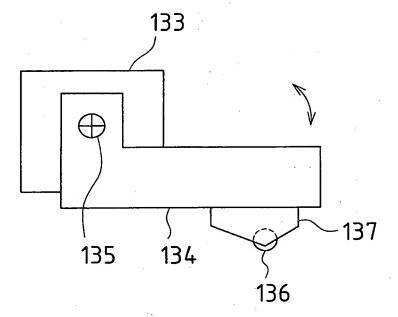


FIG.30

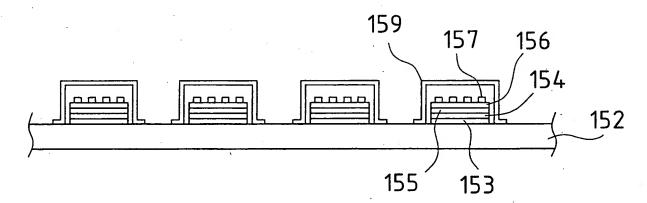


FIG.31

